

**Notice of Allowability**

Application No.

09/783,657

Examiner

Anh Ly

Applicant(s)

LEE ET AL.

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/12/2005.
2. ☒ The allowed claim(s) is/are 1,3-4, 6-7, 9-37, 39-40, 42, 44-69 & 71-77 (renumbered as 1-70).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
JEAN M. CARRIELLUS  
PRIMARY EXAMINER

### **DETAILED ACTION**

1. This Office Action is response to Applicants' AMENDMENT filed on 10/12/2005.
2. Claims 75-77 have been added.
3. Claims 2, 5, 8, 38, 41, 43 and 70 have been cancelled.
4. Claims 1, 3-4, 6-7, 9-37, 39-40, 42, 44-69 and 71-77 are allowed.

### **Allowable Subject Matter**

5. The present application has been thoroughly reviewed. Upon searching a variety of databases, the examiner respectfully submits that claims 1, 3-4, 6-7, 9-37, 39-40, 42, 44-69 and 71-77 are allowed in light of the applicants' argument and in light of the prior arts of made record.

6. The following is an examiner's statement of reasons for allowance:

The claimed invention is directed to a method and a system for generating a schema for a relational database corresponding to a document having a document-type definition (DTD) and data complying with the document-type definition (DTD). A relational schema definition is examined for XML data, a relational schema is created out of a DTD, and XML data is loaded into the generated relational schema that adheres to the DTD. All of the information contained in the DTD is captured in the metadata tables. The metadata tables comprises a metadata item table containing metadata representative of element types in the DTD, a metadata attribute table containing metadata representative of attributes in the DTD, and a metadata nesting

Art Unit: 2162

table containing metadata representative of nesting relationships between particles in the DTD.

The closest prior arts, Cheng et al. (hereinafter Cheng) of US Patent No.: 6,519,597 teaches relational extenders for a computer-implemented relational database system. An XML extender for a computer-implemented relational database system is disclosed for storing, querying and retrieving structured documents. While Henninger et al. (hereinafter Henninger) of US Patent No.: 5,499,371 automatically generating source code for constructing relational database schema and transform.

Thus, in combination, Cheng and Henninger fail to teach "storing the metadata in at least three tables comprising a metadata item table, a metadata attribute table and a metadata nesting table" as recited in independent claims 1, 37 & 67." (Page 13, third paragraph).


These distinct features, in conjunction with all other limitations of the dependents and independent claims render claims 1, 3-4, 6-7, 9-37, 39-40, 42, 44-69 and 71-77 them allowable.


7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Contact Information**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ly whose telephone number is (571) 272-4039 or via E-Mail: ANH.LY@USPTO.GOV or fax to **(571) 273-4039 (Examiner's fax number)**. The examiner can normally be reached on TUESDAY – THURSDAY from 8:30 AM – 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, can be reached on (571) 272-4107 or **Primary Examiner Jean Corrielus (571) 272-4032**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any response to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, or faxed to: **Central Fax Center: (571) 273-8300**

ANH LY   
JAN. 4<sup>th</sup>, 2006

  
JEAN M. CORRIELUS  
PRIMARY EXAMINER